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A NEW SPECIES OF *CADUCIFER* (*MONOSTIOLUM*) FROM THE WESTERN ATLANTIC (BUCCINIDAE)

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An examination of collections of *Caducifer* (*Monostiolum*) *swifti* (Tryon, 1881) has revealed the presence of a related, undescribed species. At present this new species, *Caducifer* (*Monostiolum*) *weberi*, is known only from 73 m off of Looe Key, Big Pine Key, Monroe County, Florida, and from La Chorrera, Havana, Habana Province, Cuba.

Caducifer (*Monostiolum*) *weberi* n. sp.
(Figs. 1-6, 11)

Description: Holotype 16 mm in length, fusiform, the spire approximately 3/5 the total length. Protoconch blunt, consisting of 1½ smooth, rounded whorls. Postnuclear whorls 6¼ - 7½ in number, abruptly arising from the protoconch, the earlier postnuclear whorls strongly

sculptured (Fig. 11), becoming less so on successive whorls. The postnuclear sculpture consists of distinct spiral threads separated by grooves of equal width. The axial ribs become less pronounced and more irregularly spaced on later whorls, barely perceptible on the last ½ whorl. The threads do not diminish in strength as they pass over the axial ribs. By the sixth whorl the axial threads become more subdued and secondary threads appear in the interstices; these quickly become equal in strength to the primaries, resulting in a sculpture of close-set, low-lying threads. On the last ½ whorl microscopic tertiary threads may originate between the existing ones. Several threads on the siphonal canal are distinctly wider and more pronounced than those of the remaining portion

of the whorl. The last $\frac{1}{4}$ whorl flares outward to form a varix over which the spiral threads continue. The varix abruptly constricts and forms a short but distinct, thick outer lip. The aperture is oval, weakly crenulated, bearing 4-5 indistinct teeth within the outer lip. Posteriorly the siphonal canal is delineated by a tooth on the outer lip and an internally directed ridge on the parietal wall. Parietal callus smooth, distinct, adherent to the body whorl along its length. Columella straight, terminating in a short, open siphonal canal; the siphonal canal notch shallow. The color is orangish-brown with the protoconch and occasional axial ribs white. A prominent, uninterrupted white band encircles the whorl just below the periphery of the shoulder; this is seen as a sutural band on previous whorls. Aperture white.

Type locality: 40 fathoms (73m) off of Looe Key, Big Pine Key, Monroe County, Florida. *Holotype:* ANSP 355365. *Paratypes:* AMNH 206077; USNM 617392 - both La Chorrera, Havana, Habana Province, Cuba.

Measurements (in mm):

	Length	Width	Number of postnuclear whorls
Holotype ANSP 355365	16.0	6.0	7.5
Paratype AMNH 206077	14.0	5.7	6.3
Paratype USNM 617392	12.6	5.0	7.5

Remarks: *Caducifer (Monostiolum) swifti* (Tryon, 1880) is the only other species of the subgenus known to occur in the western Atlantic (Figs. 7-10, 12). Both *C. swifti* and *C. weberi* have similar protoconchs (Figs. 11, 12) and overall sculpture; however, the axial ribs of *C. swifti* are more clearly defined and more numerous, persisting longer on the later whorls than those found on *C. weberi*. The body whorl of *C. swifti* is only as wide as the penultimate whorl and ter-

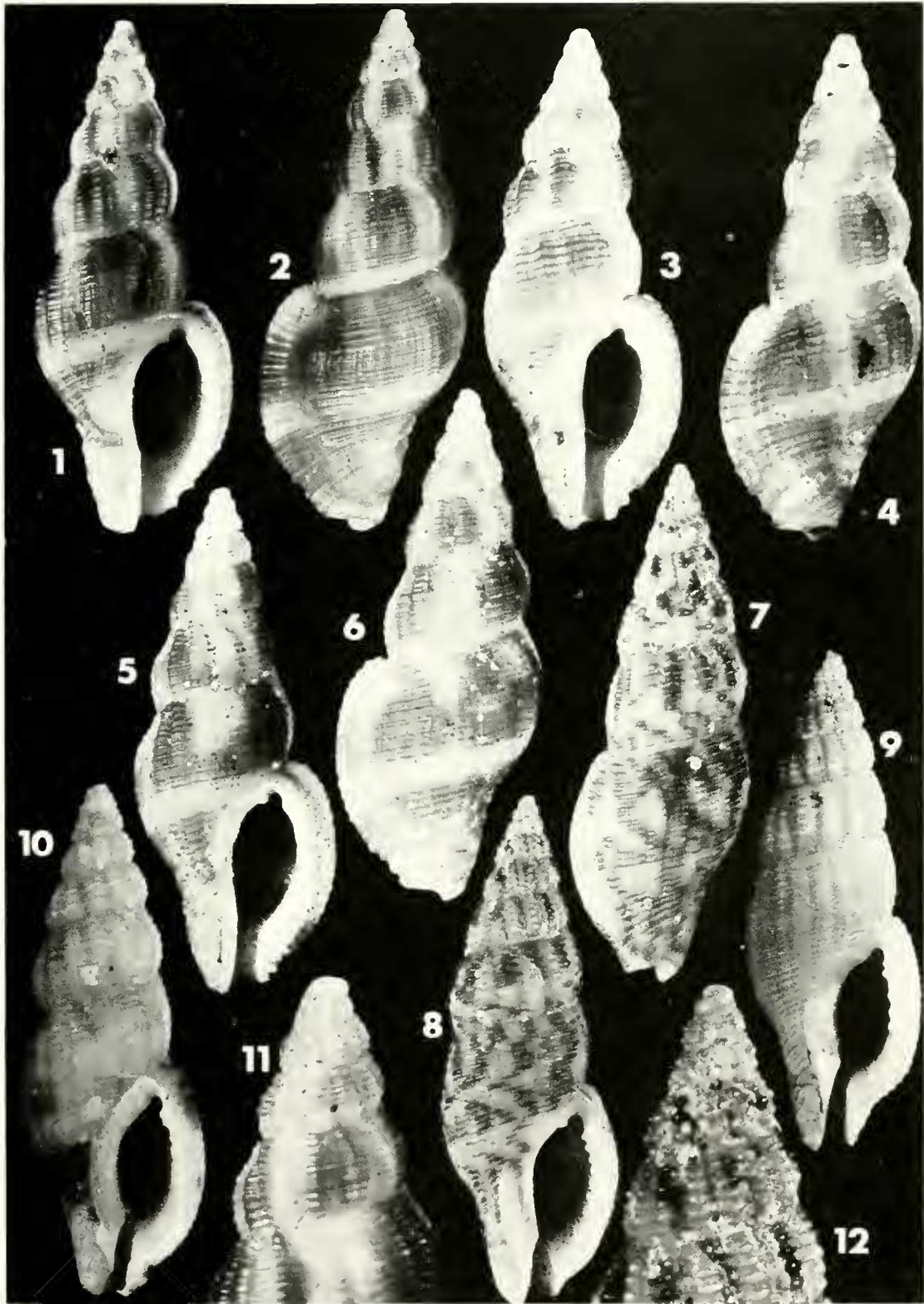
minates in only a slightly expanded varix while the body whorl of *C. weberi* expands at the same rate as the earlier whorls and forms a wider varix. This results in a less pupoid outline in *C. weberi*, giving that species much the same appearance of a *Bailya* M. Smith, 1944. The aperture of *C. weberi* lacks the well-defined teeth on the outer lip evident in *C. swifti* and the columella is straight along its entire length, not bent at a distinct angle delineating the siphonal canal as in *C. swifti*. The color pattern of *C. swifti*, when present, is of zig-zag axial markings, although the color of these markings may range from dark brown to yellow. The single white spiral band on the uniformly orangish-brown background of *C. weberi* is never found on *C. swifti*.

Authors such as Abbott (1954, 1974), Rios (1975), and Warmke and Abbott (1962) have considered *Monostiolum* Dall, 1904, a subgenus of *Colubraria* Schumacher, 1817, which has been variously considered a buccinid or a cymatiid. Despite their cymatiid form, such genera as *Colubraria*, *Caducifer*, and *Bailya* are now known to be more closely related to the buccinids (Abbott, 1954; Keen, 1971). Keen considered *Monostiolum* to be a subgenus of *Caducifer*. Ponder (1972) placed *Caducifer* under *Monostiolum*, and Cernohorsky (1972) placed *Caducifer* under *Pisania* Bivona-Bernardi, 1832. Clearly the exact relationship of *Monostiolum* to other buccinids is not understood. The taxonomy adopted here follows Keen in considering *Monostiolum* a subgenus of *Caducifer*.

Keen (1971) has allocated several east Pacific species to *Monostiolum*, all of which are considerably more rugosely sculptured than either *C. swifti* or *C. weberi*. Only one species of *Caducifer* s.s. has been reported from the New World: *C. atlanticus* Coelho, Matthews, and Cardoso, 1970, from northeast Brazil. Sander and Lalli (1982) have reported shells of a *Colu-*

(opposite page)

FIGS. 1-12. 1-6, *Caducifer (Monostiolum) weberi* new species. 1 and 2, *Holotype* ANSP 355365, 73 m off of Looe Key, Florida, 16 mm in length. 3 and 4, *Paratype* USNM 617392, 12.6 mm in length. 5 and 6, *Paratype* AMNH 206077, 14.0 mm in length. Both paratypes from La Chorrera, Cuba. 7-10, *Caducifer (Monostiolum) swifti* (Tryon, 1881). 7 and 8, *Watters* coll. 4068A, Bermuda, 18 mm in length. 9, USNM 54542, "Bahamas", 14.4 mm in length. 10, USNM 682304, Buccoo Reef, Tobago, 14.3 mm in length. 11, *C. (M.) weberi* new species, *Holotype*, sculpture of early whorls. 12, *C. (M.) swifti* (Tryon, 1881), *Watters* coll. 4068A, sculpture of early whorls.



bravia (*Monostiohum*) species from 125 and 175 m off of the Barbados which may prove to be *C. weberi*, but I have been unable to gather any further information on these specimens.

This species is named in honor of the late Jay Weber, an ardent collector whose contributions to malacology have yet to be completely appreciated. I would like to thank Dr. Joseph Rosewater and Dr. Harald Rehder (USNM), Ms. Mary A. Garback (ANSP), and Dr. William Emerson (AMNH) for their assistance in this study.

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NOTES ON MISSISSIPPI RIVER BASIN MOLLUSCA PRESENTLY OCCURRING IN THE HUDSON RIVER SYSTEM

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ABSTRACT

The Hudson River system in northeastern North America contains an aquatic molluscan fauna that is comprised of both Atlantic coastal drainage and Mississippi River faunal group species. The occurrence of Mississippian basin mollusk species in the Hudson River system, however, has received little study. Besides those species that invaded the Hudson River system from the Mississippi River basin during late glacial dispersal, other species have entered the Hudson River system by way of Erie and Champlain canals. The present report discusses Mississippian basin mollusk species that have been previously unreported, of restricted distribution, or poorly known in the Hudson River system.

The Hudson and St. Lawrence Rivers are biologically unique among major northeastern North American drainage systems for they contain aquatic mollusk faunas that are derived from both Atlantic coastal and Mississippian basin faunal regions. Concerning the Hudson River system both natural and artificial causes

are responsible for the presence of Mississippian basin species within its watershed. A former natural connection between the Great Lakes and the Mohawk River, a major tributary of the Hudson River, during late-glacial times allowed passage of some species from west to east (Simpson, 1896; Smith, 1982), and possibly vice-